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Inhomogeneous structures formed in a relativistic gas layer by a gravitational-wave background

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Abstract

Analyzing exact integrable models for the evolution of a relativistic gas layer, it is shown that the development of nonequilibrium processes, initiated by an intensive gravitational wave field, results in the formation of inhomogeneous structures, properties of which are defined by the nature of the boundary conditions, the thickness of the gas layer, and the field intensity of the gravitational wave. © 1992 Plenum Publishing Corporation.

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